



DIRECTORATE OF  
INTELLIGENCE

## *Imagery Analysis Service Notes*

8 September 1967

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This publication highlights significant or timely intelligence items derived from photography.

The interpretations in this publication represent preliminary views which are subject to modification in the light of further information and more complete analysis.

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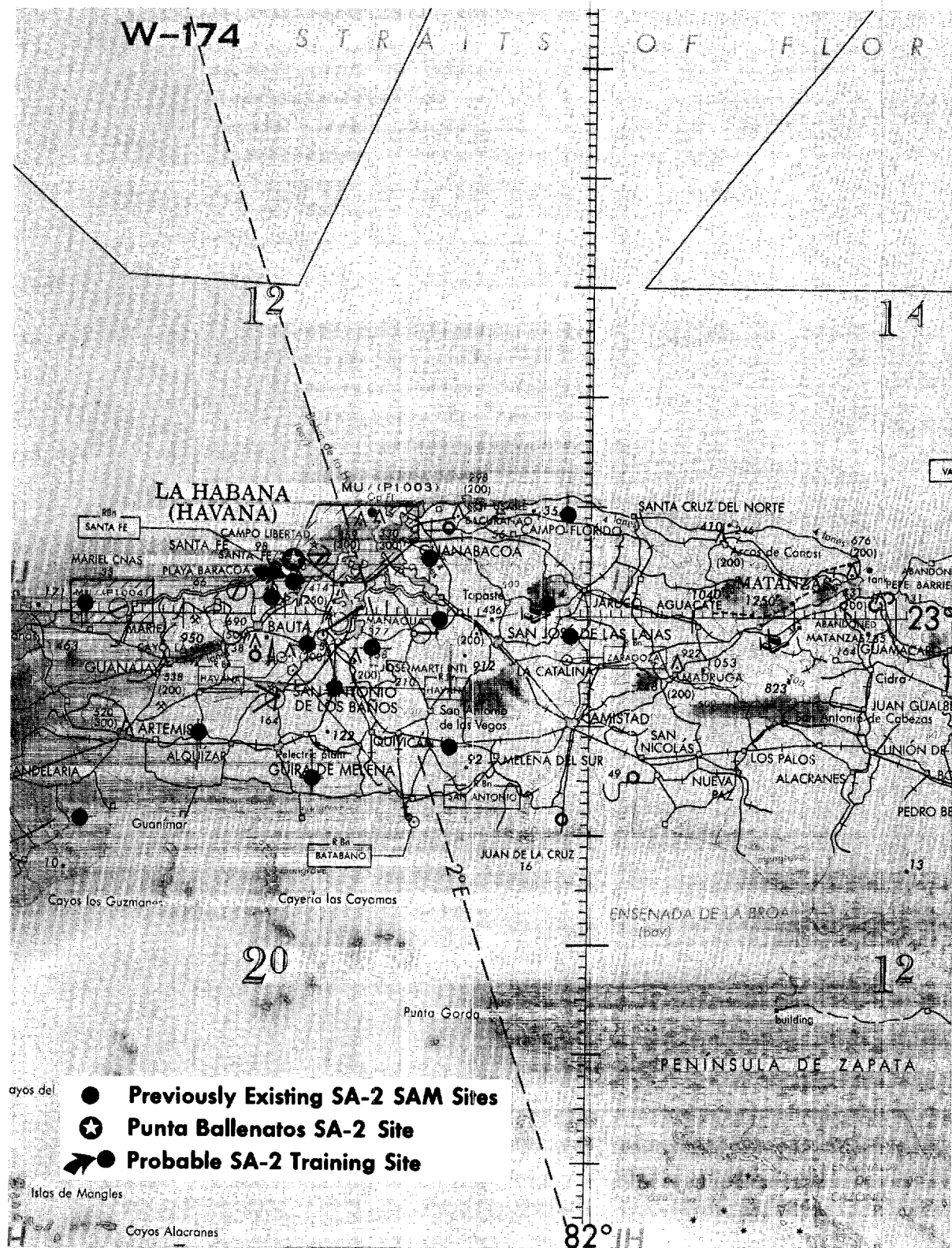
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**FIGURE 2 SA -2 SAM Sites, Havana, Cuba**

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CUBAConversion of SAM Site from an SA-3 to SA-2 Configuration

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The SA-3 SAM site identified under construction on [REDACTED] photography (GLASS LAMP [REDACTED] at Punta Ballenatos (23-04N 82-29W) near Havana, had been replaced by an SA-2 site when seen on [REDACTED] photography (GLASS LAMP [REDACTED]). The original construction at Punta Ballenatos was clearly being built to Soviet specifications for an SA-3 site. Though reasons for the subsequent change in site configuration are not known, the original construction may have been undertaken in anticipation of Soviet SA-3 equipment which failed to materialize. The location of the site, near the coast and close in to Havana, is well suited to deployment of an SA-3 site. The subsequent construction of an SA-2 site in its place is puzzling since the pattern of existing SA-2 sites around Havana would not seem to indicate the need for another site, particularly one located at Punta Ballenatos (see Figure 2).

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The SA-3 site which was being built at Punta Ballenatos was the only SA-3 site ever to be identified outside the USSR. It consisted of four single-entrance "drive-into" launch positions arranged in a trapezoidal pattern; this is typical of SA-3 construction techniques seen in the USSR. Earth scarring for two missile hold positions plus the outline of one service road were also present at the site [REDACTED] (see Figure 3). This short spur-like service road is particularly indicative of SA-3 activity. It permits the missile transporter to pull up and back toward the launcher for unloading. Figures 3-5 compare the Cuban Site in an SA-3 configuration with typical Soviet SA-3 Sites.

On the photography [REDACTED] the original SA-3 activity was no longer discernible, and the construction of the SA-2 site replacing it was well along. The SA-3 launch revetments had apparently been levelled and their locations reworked to form four of the six new launch positions. These new positions are the usual "drive-through" type associated with SA-2 activity, permitting the longer SA-2 missile transporter to pass completely through the launch position without turning or backing. Figures 6 and 7 compare the Cuban site in an SA-2 configuration with a typical Soviet SA-2 site.

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It should be noted that this analysis is based solely on site configurations since we have observed no missile or missile-related equipment at this site which would confirm the actual deployment of an operational SAM unit.

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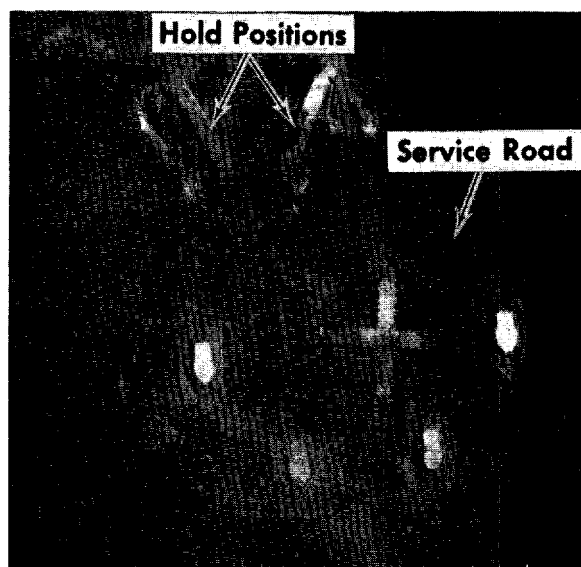
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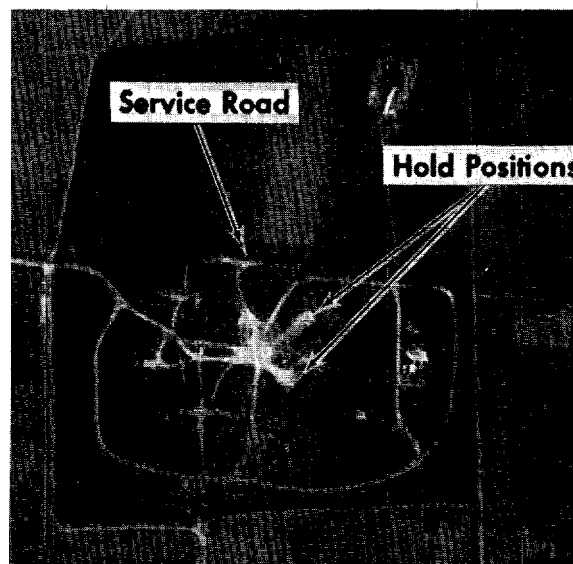


**FIGURE 3**  
**SA-3 SAM Site Under Construction,**  
**Punta Ballenatos, Cuba**

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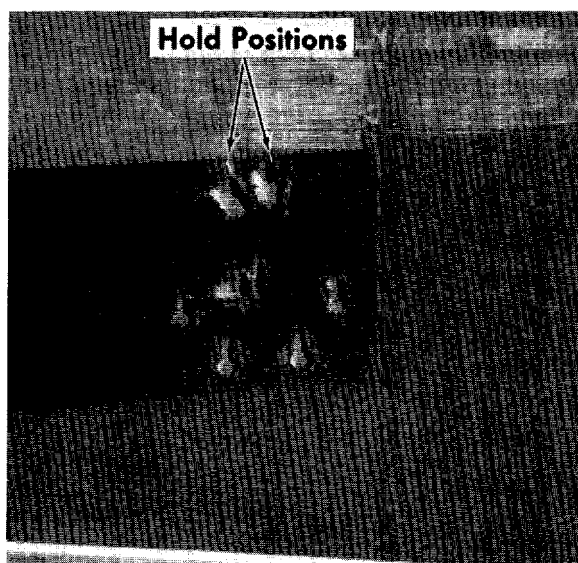
**FIGURE 4**  
**SA-3 SAM Site B10-3**  
**Pruzhany, USSR**

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**FIGURE 5**  
**SA-3 SAM Site B06-3 Under**  
**Construction, Pruzhany, USSR**

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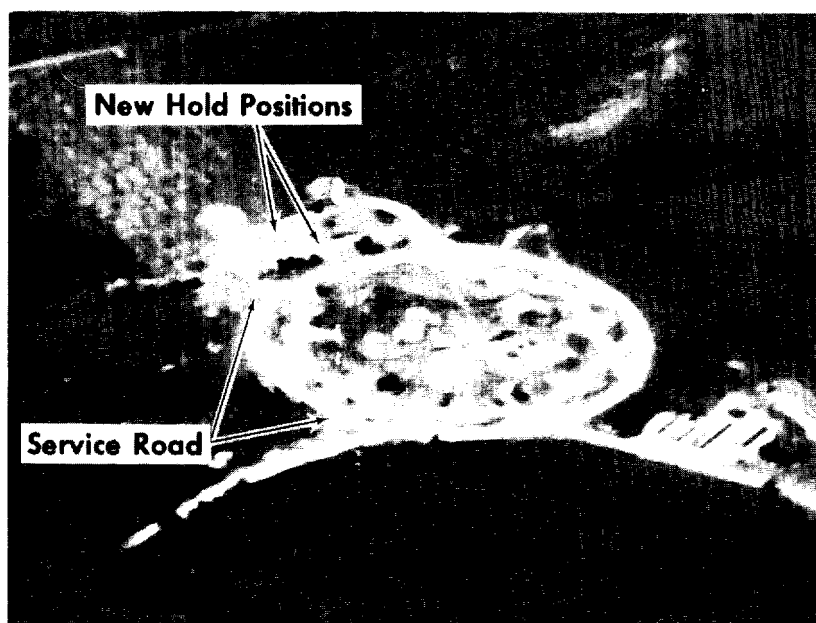
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**FIGURE 6 SA-2 SAM Site Under Construction,  
Punta Ballenatos, Cuba**

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**FIGURE 7 Typical Soviet SA-2 SAM Site**

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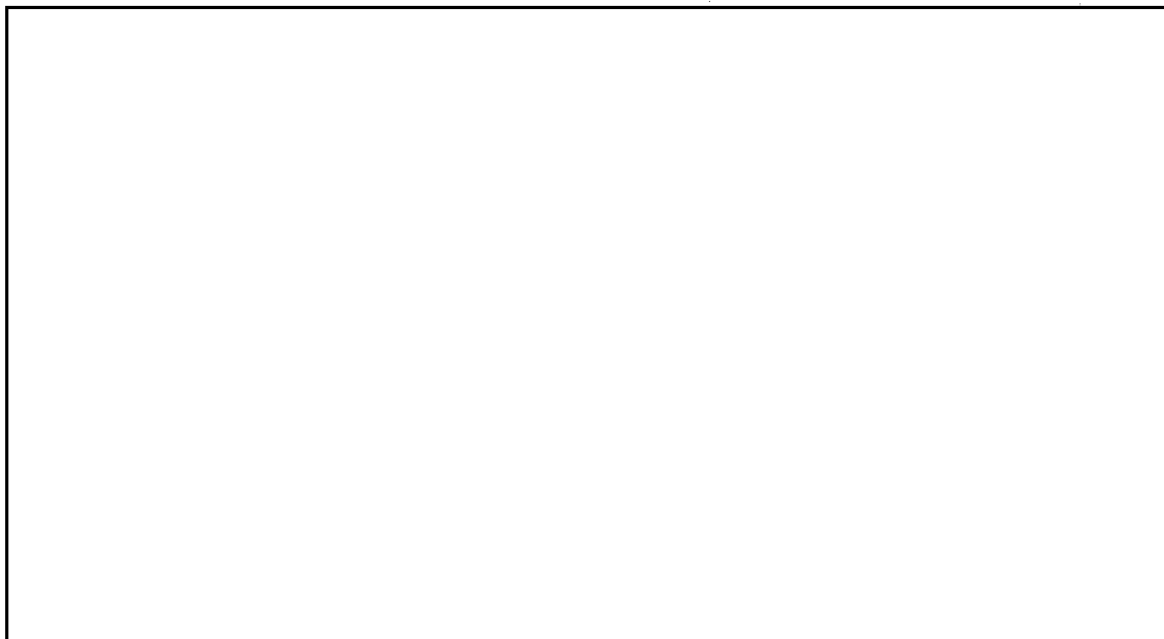


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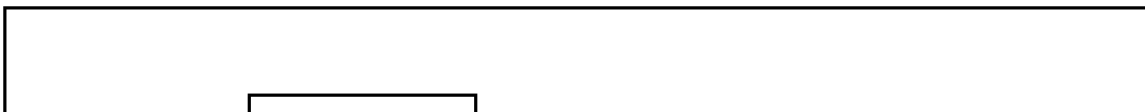


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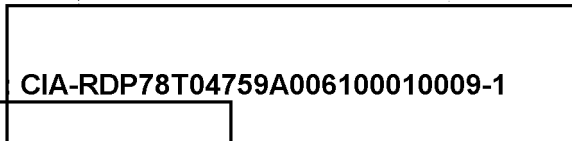
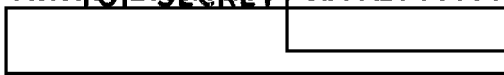
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